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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,983	03/08/2002	Yasuki Ohtawa	0425-0881P	1506
2292	7590	01/15/2004	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			HARDEE, JOHN R	
			ART UNIT	PAPER NUMBER
			1751	

DATE MAILED: 01/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/092,983	OHTAWA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	John R. Hardee	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 1,5 and 8-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-4,6 and 7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All   b) ☐ Some \* c) ☐ None of:  
 1. ☐ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
 a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                            | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____   |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)        | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ | 6) <input type="checkbox"/> Other: ____                                     |

## DETAILED ACTION

### *Election/Restrictions*

1. Claims 1 and 5 are withdrawn from consideration by the examiner as being drawn to inventions withdrawn without traverse. Making component IV a mandatory ingredient (as in claim 5) results in the non-elected combination.
2. Claims 8-11 remain withdrawn from consideration as being drawn to inventions non-elected without traverse in Paper No. 9.

### *Claim Rejections - 35 USC § 103*

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 2-4, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Behler et al., US 5,854,201. The reference discloses textile softening concentrates comprising quaternized esters of the form shown in Fig. II. Subscripts u and v may be 1, and *R2 may also be a long-chain ester group*, in which case II is a triesterquat of the form recited by applicant. At col. 3, lines 50+, the reference discloses that such triesterquats are preferred. The concentrates further comprise ethoxylated fatty acids III (col. 2, bottom). Triesterquats are made by esterifying triethanolamine and subsequently quaternizing it (col. 3, lines 35+). The tertiary amines recited by applicant are not specifically disclosed, but the examiner notes that these tertiary amines are the reactants of the quaternization reaction taught in the reference. It is well known in the organic chemical art that no reaction goes to 100% completion. Accordingly, the person

of ordinary skill in the chemical art would expect that some amount of tertiary amine precursor would be present in any batch of triesterquat. It would have been obvious at the time the invention was made to have some amount of tertiary amine present in a composition comprising triesterquat, because chemical reactions generally do not go to completion and some amount of unreacted starting material, in this case the tertiary amine, would be expected to be present. Regarding claim 6, note col. 4, lines 47+, which teach that the nonionic emulsifiers, such as the ethoxylated fatty acid, are present in amounts equal to or larger than the quat. Regarding claim 7, if the emulsifier is present at 5-30%, it follows from the foregoing that similar amounts of the quat are present.

5. Claims 2-4, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Behler et al., as cited above, in view of Uphues et al., US 5,296,622. The disclosure of Behler is summarized above. Presence of tertiary amines is not disclosed. Uphues discloses a method for synthesizing diesterquats via esterification of triethanolamine. The reference further teaches that 0.7-1.0 equivalent of alkylating (quaternizing) agent may be used in the subsequent reaction to ensure that none of the alkylating agent remains unreacted. Accordingly, it would have been obvious at the time the invention was made to use less than an entire equivalent of alkylating agent in the quaternization reaction of Behler, because Uphues teaches the utility of using less than an equivalent of alkylating agent to avoid having unreacted alkylating agent in the resulting product.

***Response to Arguments***

6. Applicant's arguments filed December 4, 2003 have been fully considered but they are not persuasive. Applicant argues that the Behler reference does not directly teach the production of a triesterquat. This is not persuasive because the reference directly discloses that R2 may be an acyl group. While there is no explicit teaching that the amount of monoester should be minimized, minimization of the amount of monoester is a direct concomitant of maximizing the amount of triester, the utility of which is clearly disclosed.

Applicant's argument regarding Example A2 is well taken, but it is not persuasive. Utility of the diester and the triester are both clearly disclosed, as is production of same via acylation and quaternization of triethanolamine (col. 3, lines 38+). A teaching of the utility of the triesterquat makes a greater degree of acylation "obvious to do", despite the fact that use of the diesterquat is exemplified and use of the triesterquat is not. It is well settled that the teachings of a reference encompass all that they would convey to the person of ordinary skill in the art, and not just what is exemplified.

How applicant calculated the degree of acylation in Example A2 is not clear. This looks like a simple melt-blending of a pentaerythritol diester, diesterquat (which contains both mono- and triesterquat) and an alkoxylated fatty ester. How has applicant determined any ester distribution from this disclosure?

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to the examiner, Dr. John R. Hardee, whose telephone number is (571) 272-1318. The examiner can normally be reached on Monday through Friday from 8:00 until 4:30. In the event that the examiner is not available, his supervisor, Dr. Yogendra Gupta, may be reached at (571) 272-1316.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.



John R. Hardee  
Primary Examiner  
January 7, 2004